Logic Model for Subobjective 1.1.1: Attain NAAQS for Ozone - (Draft) EPA HEADQUARTERS

RESOURCES

Budget 313 FTEs \$65.4 million \$ 6.2 million in 105 grant set-asides [2]

Other Funds Mobile Source Fees

Facilities
Mobile Source Lab

Equipment

Information Resources
CAA-Title I

CAA-Title II
Motor Vehicle
Information and
Cost Savings Act
Alternative Motor
Fuels Act of 998
EPA Strategic and
Implementation
Plans

Research Results
NAAQS
Related research
[subobj.1.1.8]
Ecosystem effects
research [Goal 8]

Stakeholder Input CAA Advisory Committee

Non-EPA research

ECOS STAPPA/ALAPCO Environmental Groups

Regulated Industry

Partnerships DOT, DOE States, Locals, and Tribes Regional Planning

Organizations

PROGRAMS/ACTIVITIES [3]

Set NAAQS

Attainment Status Review

State Implemented

Strategies/Controls to Attain/Maintain NAAQS

State Implementation Plans Regional Transport Rule

NSR/PSD

New Source Performance Standards [4]

Vehicle Inspection and Maintenance Transportation Control Measures

Conformity -Transportation and General State fuels programs under 211(c)4(C)

Clean Fuel Fleets

Urban Buses

Federal Emissions Standards Development and Implementation

Fuels, Engines, and Vehicle standards [9]

Fuels, Engines and Vehicles Certification and In-Use Compliance

Incentive-Based Programs [5]

NOx Budget Trading [6][8]

Diesel Retrofit

Clean Air Transportation Grants

Transportation Control Measures
Commuter Choice (partner with DOT)

Land Use

Measurement/Assessment

Ambient Monitoring - PAMS, SLAMS, NAMS

Emissions Inventories [8]

Emissions Factors

Emissions Characterization Studies (NOx, VOC, and PM) [8]

Model development and analysis

Research and Development

Emissions control technologies for engines (OTAQ)

Education and Outreach Activities

Fuel Economy Label and Guide Programs

Corporate Average Fuel Economy TRAQ Center (partner with DOT)

Mobile Source Outreach Assistance Competition[8]

Air Pollution Training Institute[8]
Technology Transfer Network

Legal Support [10]

OUTPUTS

Set NAAQS Staff Paper

NAAQS for Ozone

Attainment Status Review
Attainment and Non-attainment
Designations and
Redesignations

State Implemented
SIP Concurrences
Regulations
Policies and Guidance
Reports of Studies
Technical support/guidance

<u>Federal Emission Standards...</u> Regulations (i.e, emission standards) Compliance certifications

Incentive-Based
Regulations
Policy and Guidance
Transportation Grants

Measurement
Air Quality Trends Reports
Emissions Progress
Assessment Reports
Emissions Inventories
Emissions Factors (AP-42)
Modeling Evaluations
Modeling Guidelines

Research and Development New Technologies

Technical support/guidance

Outreach/Education
Fuel Standards Economy
Information
Training Courses
Conferences
Speeches
Websites
Guides (e.g.,Green Vehicle)
Press Releases

CUSTOMERS

NAAQS
Attainment Status
State Implemented
EPA-OGC
EPA Regions
State/Local/Tribal
Governments
Industry

Public
Trade Associations
Government
Associations
Public Health Agencies
Congress
Academia

Federal
All listed above plus
Automakers
Oil, Utility, and
Chemical Industries

Incentive-Based
All listed above

Measurement All listed above

Research Automakers

Outreach/Education
All listed above
Public Schools
Department of
Transportation

SHORT-TERM OUTCOMES (Knowledge, Attitudes, Skills, and Aspirations)

Customers become aware of and understand EPA regulations and HQ's policies.

Customers gain knowledge about extent of pollution, causes and sources of pollution, effects of pollution, and effectiveness of control strategies.

Customers learn how to use tools (e.g., models) in analyzing and developing their control strategies and programs.

Customers decide to comply with mandated controls as well as make voluntary efforts to reduce emissions.

Unintended Outcomes
Customers or
stakeholders do not
agree with EPA
decisions,
regulations, policies,
or guidance.

SHORT-TERM OUTCOMES ACTIONS

Strategies/Controls State Implemented

EPA Regions implement HQ's policies.

In coordination with EPA Regions, states implement programs in accordance with regulations and EPA policy.

In Coordination with Regions and States

Industry complies with regulations Public changes behavior to reduce emissions and exposure

Strategies/Controls Federally Implemented

Regulated industries understand requirements and comply with federal standards.

Unintended Outcomes Customers or stakeholders sue EPA.

Customers do not implement EPA policies, comply with regulations, or change behavior contributing to air pollution.

RESOURCES

Budget 192.8 FTEs \$20.1 million

Information

Resources

HQ's policies
EPA Strategic and
Implementation
Plans
Operating plans

Operating plans Regulations Emissions data Census data

Facilities Regional Labs

Equipment
High-powered
PCs for modeling
Testing
equipment

Stakeholder Input
CAA Advisory
Committee
ECOS
STAPPA/ALAPCO
OTAG
Environmental
Groups
Regulated industry

Partnerships OTC RPOs States/Locals/Tribes

PROGRAMS/ACTIVITIES [3]

Attainment Status Review

State Implemented Strategies/Controls to Attain/Maintain NAAQS

State Implementation Plans Regional Transport Rule NSR/PSD

New Source Performance Standards [4] Vehicle Inspection and Maintenance

Conformity

Transportation Control Measures

State Fuels Programs Under 211(c)4(C) Clean Fleets

Urban Buses

Federal Emissions Standards Development and Implementation

Fuels, Engines, Vehicle In-use Compliance

Incentive-Based Programs [5]
NOx Budget Trading [6]

Diesel Retrofit,

Clean Air Transportation Grants Transportation Control Measures

Commuter Choice

Land Use

Clean Cities (Sponsored by DOE)

Measurement/Assessment

Monitoring networks (PAMS, SLAMS, NAMS) Studies in support of regulatory programs

Modeling

Emissions Inventories

Education and Outreach Activities

Ozone Action

Legal Support [11]

OUTPUTS

Attainment Status Review
Technical Support Documents

(Part 81 tables)

State Implemented
FR Notices (SIPs)
Guidance
Oversight reports
Permit reviews/approvals
Technical Support/Guidance

Federal Emission Standards
Technical assistance (motor
vehicle compliance, recall,
and warranty programs)

Incentive-Based Programs
Technical support/guidance

Measurement/Assessment Reports Analyses

Outreach/Education
Press releases
Websites
Conferences
Literature/pamphlets
Speeches
Technical support and
quidance

CUSTOMERS

EPA HQ

Other Regional Program Offices

State/Local/Tribal Governments

Industry

Public

Trade Associations

Government Associations

Regional Counsel

Federal Facilities

Congress and individual members

SHORT-TERM OUTCOMES (Knowledge, Attitudes, Skills, and Aspirations)

State/Local/Tribal Agencies understand EPA policy and guidance.

Industry understands air pollution regulations /requirements.

Changes in pubic attitudes about environmental controls/programs.

Unintended Outcomes
Customers or
stakeholders do not
agree with EPA
decisions, policies,
guidance, or
regulations.

SHORT-TERM OUTCOMES ACTIONS

State/Local/Tribal
Agencies
implement air
pollution control
program in
accordance with
EPA policy and
quidance.

Industry complies with regulations, emissions limits.

Public changes behavior to reduce emissions and exposure.

Public supports environmental activities and programs.

Unintended Outcomes
Customers do not
implement EPA
policies, comply
with regulations, or
change behaviors
contributing to air
pollution.

STATES, LOCAL AGENCIES AND TRIBES

RESOURCES

Budget \$59.8 million in FY 01 105 grant funds Title V permit fees State funds **DOT-CMAQ funds**

Facilities

Equipment

Information Resources: EPA policy, guidance, and regulations State regulations

Stakeholder input Regulated community Environmental groups Public officials

Politicians

PROGRAMS/ACTIVITIES [3]

Attainment Status

State Implemented Strategies/Controls to Attain/Maintain NAAQS

State Implementation Plans Regional Transport Rule

NSR/PSD

New Source Performance Standards [4]

Vehicle Inspection and Maintenance

Conformity

Transportation Control Measures

State Fuels Programs

Clean Fleets

Urban Buses

Federal Emissions Standards Implementation

Fuels, Engines, Vehicle In-use Compliance

Incentive-Based Programs [5]

Programs differ among states. Examples include:

NOx Budget Trading [6]

Diesel Retrofit

Clean Air Transportation Grants

Transportation Control Measures

Commuter Choice

Land Use

Clean Cities (Sponsored by DOE)

Measurement/Assessment

Monitoring Networks (PAMS, SLAMS, NAMS)

Modelina

Emissions Inventories

Education and Outreach Activities

Ozone Action

OUTPUTS

Attainment Status

Attainment demonstrations Redesignation requests

State Implemented...

SIPs and SIP revisions State Regulations NSR/PSD Permits Vehicle Inspections

Federal

Compliance Assistance

Incentive-Based

Subsidies Vouchers

Measurement/Assessment

Monitoring data/reports **Emissions Inventories** Studies and Analyses

Outreach/Education

Pamphlets

Ozone episode alerts, forecasts

Press Releases

Websites

TV and Radio Messages

CUSTOMERS

EPA HQ

EPA Regions

Industry

Public

SHORT-TERM OUTCOMES (Knowledge, Attitudes, Skills, and Aspirations)

Industry understands permit requirements.

Public becomes aware of pollution control requirements and programs.

Public becomes aware of actions that create air pollution.

Unintended Outcomes

Customers or stakeholders do not agree with EPA and/or state regulations and requirements.

SHORT-TERM OUTCOMES **ACTIONS**

Industry changes processes, install controls.

Industry complies with permit limits.

Public complies with pollution control programs.

Public reduces behaviors that contribute to pollution.

Unintended Outcomes

Industry or public does not comply with EPA and state regulations and requirements, or change behaviors contributing to pollution.

OTHER EPA AND NON-EPA PROGRAMS THAT CONTRIBUTE TO REDUCED VOC AND NOX EMISSIONS

EPA GOAL 1 PROGRAMS

Subobjective 1.1.2 - Attain Particulate Matter NAAQS

Subobjective 1.1.6 - Maintain Nitrogen Dioxide NAAQS

Subobjective 1.2.3 - Reduce Cancer and Non-Cancer Risks From Air Toxics

Subobjective 1.3.1 - Reduce Acid Rain Precursors

EPA NON-GOAL 1 PROGRAMS

Goal 4 - Preventing Pollution and Reducing Risk in Communities, Homes, Workplace, and Ecosystems

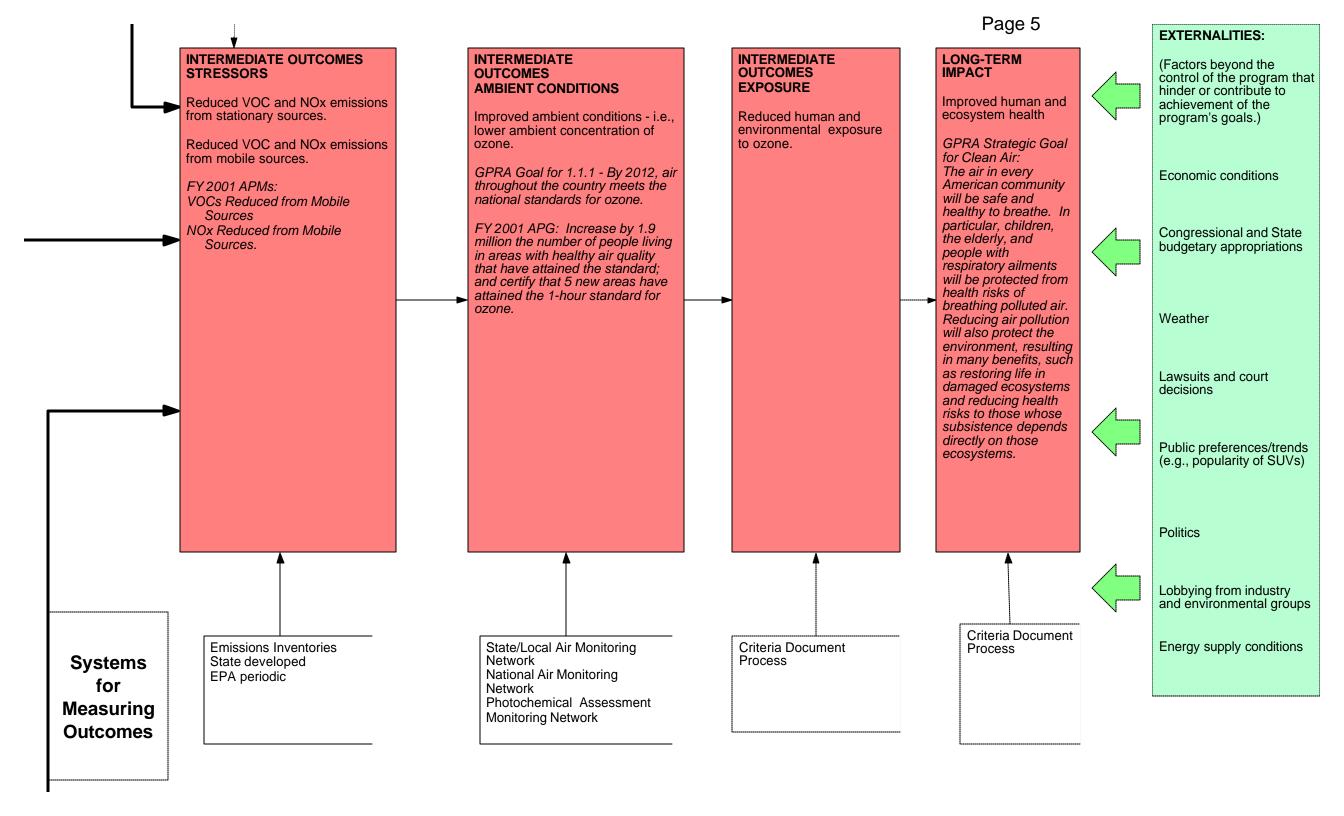
Goal 6 - Reduction of Global and Cross-Border Environmental Risks (e.g., Green Lights, Energy STAR)

Goal 8 - Sound Science, Improved Understanding of Environmental Risk, and Greater Innovation to Address Environmental Problems

Goal 9 - A Credible Deterrent to Pollution and Greater Compliance with the Law [7]

FEDERAL AGENCY PROGRAMS

Department of Transportation (e.g., Congestion Mitigation and Air Quality Improvement Program, Clean Fuels, Commuter Choice)
Department of Energy (e.g., Advance Petroleum-Based Fuels Program, Heavy Vehicle Emissions Testing Program, National Biofuels Program)



FOOTNOTES:

- [1] = This model represents the intended design of the program based on EPA planning and budget documents, numerous EPA web-based information, applicable statutes and regulations, interviews with EPA officials, and comments from EPA officials on the preliminary versions of the model. We did not discuss the model or its contents with EPA external stakeholders such as Congressional members, industry groups, environmental groups, or state agencies. Further, we did not perform work to test whether the program is being implemented as depicted in this model.
- [2] = National set-asides are used by EPA Headquarters, with the agreement of the states, to provide services to the states (e.g., training delivery) that can be more efficiently accomplished through EPA headquarters than having each individual state perform the function on its own.
- [3] = This column is divided into categories which capture related programs/activities. Within each category we list general programs or strategies in place, not the specific activities being conducted. Programs/activities that do not receive funding from this GPRA subobjective are not listed (e.g., enforcement). Cross-cutting infrastructure programs/activities that support all Goal 1 subobjectives (e.g., resource management, information management, Title V permitting, and Tribal programs) are not listed here as well.
- [4] = EPA sets the national standards and implementation is normally delegated to the states.
- [5] = Includes economic incentive as well as voluntary programs.
- [6] = This is an economic incentive program that will be included in state SIPs under the NOx SIP call. OAR/OPA/CAMD is administering the program for the states.
- [7] = OECA activities include: developing enforcement-related rulemakings, policy, and guidance; ensuring enforceability of rules; setting national enforcement priorities; investigating and deterring violations; participating in civil and administrative case negotiations, litigation and settlements; managing national enforcement programs; collecting and integrating compliance and enforcement data; developing enforcement initiatives; and, coordinating enforcement activities with States, Locals, Tribes, EPA Regions, OGC, DOJ and other Federal Agencies. Most state and local agencies are authorized to operate federal air regulatory programs which includes conducting compliance monitoring activities such as on-site inspections and initiating appropriate enforcement actions in response to identified violations.
- [8] = Fully or partially funded by national grant set-asides.
- [9] = Development of standards for all types of engines, fuels, and vehicles.
- [10] = OGC provides advice/legal support in developing rules, handling lawsuits, Congressional Inquiries, document requests, FOIA requests, and Discovery Requests from DOJ.
- [11] = OGC provides advice/legal support for: adverse comments on a SIP, non-attainment programs, high profile facilities, source redesignations, Title V issues, and increased sanctions.